WHAT IS CLAIMED IS

1. A method for sharing a data structure in which a compiled cursor is stored, comprising:

receiving a database statement from a client;

searching memory for a similar database statement; and

reusing a data structure compiled for said similar database statement to execute said database statement when a system parameter is configured to control data structure sharing.

2. The method of claim 1, wherein reusing said data structure compiled for said similar database statement to execute said database statement occurs if said system parameter is configured to enable data structure sharing for all shareable database statements.

3. The method of claim 1, wherein reusing said data structure compiled for said similar database statement to execute said database statement occurs if said system parameter is configured to enable data structure sharing only for optimally shareable database statements.

4. The method of claim 1, wherein reusing a data structure compiled for said similar database statement occurs when a command-line parameter is configured to control data structure sharing.

5. The method of claim 4, wherein the command-line parameter is a hint for enabling a one-time system parameter override.

6. The method of claim 1, further comprising:

searching memory for an exact matching database statement prior to said step of searching memory for said similar database statement; and

executing the data structure compiled from said exact matching database statement if said exact matching database statement is found in said memory.

7. The method of claim 1, further comprising:

replacing all literals in said database statement with bind variables prior to said step of searching memory for said similar database statement.

8. The method of claim 1, further comprising returning a result set to the client if said database statement is a query.

9. The method of claim 1, wherein reusing a data structure includes executing the execution plan compiled from said similar database statement.

10. The method of claim 1, wherein said data structure comprises a cursor.

11. The method of claim 1, wherein said database statement and said similar database statement are SQL statement.

12. A method for sharing a data structure in which a compiled cursor is stored, comprising:

receiving a database statement from a client;

searching memory for a similar database statement; and

reusing a data structure compiled for said similar database statement to execute said database statement.

13. The method of claim 12, wherein reusing said data structure compiled for said similar database statement is controlled by a system parameter.

14. The method of claim 13, wherein reusing said data structure compiled for said similar database statement to execute said database statement occurs if said system parameter is configured to enable data structure sharing for all shareable database statements.

15. The method of claim 13, wherein reusing said data structure compiled for said similar database statement to execute said database statement occurs if said system parameter is configured to enable data structure sharing only for optimally shareable database statements.

16. The method of claim 13, wherein reusing a data structure compiled for said similar database statement occurs when a command-line parameter is configured to enable data structure sharing.

17. The method of claim 13, wherein the command-line parameter is a hint for enabling a one-time system parameter override.

18. The method of claim 12, further comprising:

searching memory for an exact matching database statement prior to said step of searching memory for said similar database statement; and

executing the data structure compiled from said exact matching database statement if said exact matching database statement is found in said memory.

19. The method of claim 12, further comprising:

replacing all literals in said database statement with bind variables prior to said step of searching memory for said similar database statement.

20. The method of claim 12, further comprising returning a result set to the client if said database statement is a query.

21. The method of claim 12, wherein reusing a data statement includes executing the execution plan compiled from said similar database statement.

22. In a client/server computer system having a server shared memory pool for caching client SQL requests, a method for execution plan sharing comprising:

receiving a first SQL text from a client;

searching the shared memory pool for a second SQL text similar to the first SQL text; and

executing the execution plan compiled from the second SQL text if the value of a system parameter is configured to enable execution plan sharing.

23. The method of claim 22, further comprising:

searching the shared memory pool for an exact matching SQL text prior to searching memory for the second SQL text; and

executing the execution plan compiled from the exact matching SQL text if said exact matching SQL text is found in said memory.

24. The method of claim 22, further comprising:

replacing all literals in the first SQL text with bind variables prior to the step of searching the shared memory pool for the second SQL text.

25. The method of claim 22, wherein executing the execution plan compiled from the second SQL text occurs if the system parameter is configured to enable execution plan sharing for all shareable SQL statements.

26. The method of claim 22, wherein executing the execution plan compiled from the second SQL text occurs if the system parameter is configured to enable execution plan sharing only for optimally shareable SQL statements.

27. A computer readable medium having stored thereon one or more sequences of instructions for controlling execution of one or more processors, the one or more sequences of instructions comprising instructions for:

receiving a SQL text from a client;

searching memory for a similar SQL text; and

reusing a cursor compiled for said similar SQL text to execute said SQL text if a system parameter is configured to control cursor sharing.

28. The computer readable medium of claim 27, the one or more sequences of instructions stored thereon further comprising instructions for:

searching memory for an exact matching SQL text prior to said step of searching memory for said similar SQL text; and

executing an execution plan of the cursor compiled from said exact matching SQL text if said exact matching SQL text is found in said memory.

29. The computer readable medium of claim 27, the one or more sequences of instructions stored thereon further comprising instructions for:

replacing all literals in said SQL text with bind variables prior to said step of searching memory for said similar SQL text.

30. The computer readable medium of claim 27, wherein reusing said cursor compiled for said similar SQL text to execute said SQL text occurs if said system parameter is configured to enable cursor sharing for all shareable SQL text.

31. The computer readable medium of claim 27, wherein reusing said cursor compiled for said similar SQL text to execute said SQL text occurs if said system parameter is configured to enable cursor sharing only for optimally shareable SQL text.

32. A computer readable medium having stored thereon one or more sequences of instructions for controlling execution of one or more processors, the one or more sequences of instructions comprising instructions for:

receiving a database statement from a client;

searching memory for a similar database statement; and

reusing a data structure compiled for said similar database statement to execute said database statement.

33. The computer readable medium of claim 32, wherein reusing said data structure compiled for said similar database statement is controlled by a system parameter.

34. The computer readable medium of claim 33, wherein reusing said data structure compiled for said similar database statement to execute said database statement occurs if said system parameter is configured to enable data structure sharing for all shareable database statements.

35. The computer readable medium of claim 33, wherein reusing said data structure compiled for said similar database statement to execute said database statement occurs if said system parameter is configured to enable data structure sharing only for optimally shareable database statements.

36. The computer readable medium of claim 33, wherein reusing a data structure compiled for said similar database statement occurs when a command-line parameter is configured to enable data structure sharing.

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37. The computer readable medium of claim 33, wherein the command-line parameter is a hint for enabling a one-time system parameter override.

38. The computer readable medium of claim 32, the one or more sequences of instructions stored thereon further comprising instructions for:

searching memory for an exact matching database statement prior to said step of searching memory for said similar database statement; and

executing the data structure compiled from said exact matching database statement if said exact matching database statement is found in said memory.

39. The computer readable medium of claim 32, the one or more sequences of instructions stored thereon further comprising instructions for:

replacing all literals in said database statement with bind variables prior to said step of searching memory for said similar database statement.

40. The computer readable medium of claim 32, the one or more sequences of instructions stored thereon further comprising instructions for:

returning a result set to the client if said database statement is a query.

41. The computer readable medium of claim 32, wherein reusing a data structure includes executing the execution plan compiled from said similar database statement.

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42. The computer readable medium of claim 32, wherein said data structure comprises a cursor.

43. The computer readable medium of claim 32, wherein said database statement and said similar database statement are SQL statement.

44. A system for sharing a data structure in which a compiled cursor is stored, comprising:

a server configured to accept a database statement from a client;

a search engine for searching shared memory for a similar database statement; and

a cursor sharing monitor for executing a data structure compiled for said similar database statement if the value of a system parameter is configured to enable data structure sharing.

45. The system of claim 44, wherein the cursor sharing monitor reuses an execution plan of the data structure compiled for the similar database statement to execute the database statement only if the system parameter is configured to enable data structure sharing for all shareable database statements.

46. The system of claim 44, wherein the cursor sharing monitor reuses an execution plan of the data structure compiled for the similar database statement to

execute the database statement only if said system parameter is configured to enable data structure sharing for all optimally shareable database statements.

47. The system of claim 44, wherein the cursor sharing monitor reuses an execution plan of the data structure compiled for the similar database statement to execute the database statement only if said system parameter is configured to enable data structure sharing only for optimally shareable database statements.

48. The system of claim 44, further comprising a compiler for hard parsing said database statement.

49. The system of claim 48, wherein the compiler hard parses the database statement only if (1) the value of said system parameter is not configured to force data structure sharing and said database statement and said similar database statement are suboptimally similar, or (2) if said system parameter is configured for data structure sharing only if said database statement exactly matches said similar database statement and said database statement is optimally shareable with said similar database statement, or (3) said database statement is non-shareable with said similar database statement.

50. The system of claim 48, wherein the compiler further comprises an optimizer for creating an optimal execution plan for carrying out the database statement from the client.

51. The system of claim 49, wherein the compiler further comprises a typechecker for resolving data type conflicts between the server and the client.

52. The system of claim 49, wherein the compiler further comprises a parser for hard parsing the database statement.

53. The system of claim 52, wherein the parser further comprises a tree builder for building an expression tree from the database statement.

54. The system of claim 52, wherein the parser further comprises a semantic analyzer for verifying user permissions and access privileges for one or more objects referenced in the database statement.

55. The system of claim 49, wherein the parser further comprises a syntactic analyzer for checking the syntax of the database statement.

56. The system of claim 44, wherein said database statement and said similar database statement are SQL statements.

57. The system of claim 44, wherein said data structure is a cursor.

58. A system for cursor sharing comprising:

means for accepting a SQL text from a client;

means for searching shared memory for a similar SQL text; and

means for reusing a cursor compiled for said similar SQL text if the value of a system parameter is configured to control cursor sharing.

59. The system of claim 58, wherein the means for reusing a cursor reuses said cursor when the system parameter is configured to enable cursor sharing for all shareable SQL text.

60. The system of claim 58, wherein the means for reusing a cursor reuses said cursor when said system parameter is configured to enable cursor sharing for all optimally shareable SQL text.

61. The system of claim 58, wherein the means for reusing a cursor reuses said cursor when said system parameter is configured to enable cursor sharing only for optimally shareable SQL text.

62. A system for cursor sharing comprising:

means for accepting a database statement from a client;

means for searching shared memory for a similar database statement; and

means for reusing a data structure in which a compiled cursor is stored for said similar database statement.

63. The system of claim 62, wherein the means for reusing a data structure reuses said data structure when the value of a system parameter is configured to control data structre sharing.

64. The system of claim 63, wherein the means for reusing a data structure reuses said data structure when said system parameter is configured to enable data structure sharing for all shareable database statements.

65. The system of claim 63, wherein the means for reusing a data structure reuses said data structure when said system parameter is configured to enable data structure sharing for all optimally shareable database statements.

66. The system of claim 63, wherein the means for reusing a data structure reuses said data structure when said system parameter is configured to enable data structure sharing only for optimally shareable database statements.

67. The system of claim 63, wherein said database statement and said similar database statement are SQL statements.

68. The system of claim 63, wherein said data structure is a cursor.